

**Shaw Brother's Construction, Inc.**  
**Cumberland County**  
**Gorham, Maine**  
**A-425-71-F-R**

) **DEPARTMENTAL**  
) **FINDINGS OF FACT AND ORDER**  
) **AIR EMISSION LICENSE**

After review of the air emission license renewal application, staff investigation reports, and other documents in the applicant's file in the Bureau of Air Quality, pursuant to 38 M.R.S.A., Section 344 and Section 590, the Department finds the following facts:

**I. REGISTRATION**

**A. Introduction**

Shaw Brother's Construction, Inc. (SBC), located in Gorham, Maine has applied to renew their Air Emission License, permitting the operation of their crushed stone and gravel facility.

**B. Emission Equipment**

**Rock Crushers:**

<b><u>Designation</u></b>	<b><u>Powered</u></b>	<b><u>Process Rate (tons/hour)</u></b>	<b><u>Control Device</u></b>	<b><u>Date of Manufacture</u></b>
Primary	Diesel	100	Water Sprays	1986
Primary (Locotrack 100R)	Diesel	100	Water Sprays	1996
Secondary	Diesel	100	Water Sprays	1986

**Diesel Units:**

<b><u>Source ID</u></b>	<b><u>Max. Capacity</u></b>	<b><u>Max. Firing Rate</u></b>	<b><u>Power Output</u></b>
Diesel Generator #416	5.4 MMBtu/hr	39.4 gal/hr	770 hp
Diesel Generator – CAT 3306	2.2 MMBtu/hr	15.9 gal/hr	314 hp

**C. Application Classification**

The application for SBC does not include the licensing of increased emissions or the installation of new or modified equipment, therefore the license is considered to be a renewal of current licensed emissions units only.

## **II. BEST PRACTICAL TREATMENT**

In order to receive a license SBC must control emissions from each unit to a level considered by the Department to represent best practical treatment (BPT), as defined in Chapter 100 of the Bureau of Air Quality regulations.

BPT for existing emissions equipment means that method which controls or reduces emissions to the lowest possible level considering:

- the existing state of technology
- the effectiveness of available alternatives for reducing emissions from the source being considered; and
- the economic feasibility for the type of establishment involved.

### **A. Rock Crushers**

The two primary and one secondary rock crushers were manufactured in 1986, each with rated capacities of 100 ton/hour, and all three rock crushers are portable. The two primary and one secondary rock crushers are therefore not subject to EPA New Source Performance Standards (NSPS) Subpart OOO for Nonmetallic Mineral Processing Plants manufactured after August 31, 1983, with capacities greater than 150 tons/hr for portable plants and greater than 25 tons/hr for non-portable plants.

The regulated pollutant from the rock crushers is particulate emissions. To meet the requirements of Best Practical Treatment (BPT) for control of particulate matter (PM) emissions from the rock crushers, SBC shall operate and maintain water sprays on the rock crushers. Visible emissions from the rock crushers shall be limited to no greater than 10% opacity on a 6 minute block average basis.

### **B. Diesel Units**

The diesel units, #416 and CAT 3306, power the portable rock crushers.

BPT for the diesel units is the following:

Total fuel use in the diesel units (Diesel Generators #416 and CAT 3306) shall not exceed 75,000 gallons/year of diesel fuel, based on a 12 month rolling total, with a maximum sulfur content of 0.5% by weight and are therefore considered to be receiving BPT.

A summary of the BPT analysis for each of the pollutants is discussed below:

1. PM, PM<sub>10</sub>, SO<sub>2</sub>, NO<sub>x</sub>, CO and VOC emission limits for CAT 3306 (2.2 MMBtu/hr) are based upon AP-42 data dated 10/96 for diesel engines less than 600 horsepower.

2. PM and PM<sub>10</sub> emission limits for Diesel Generator # 416 (5.4 MMBtu/hr) are based upon MEDEP Chapter 103.
3. SO<sub>2</sub>, NO<sub>x</sub>, CO and VOC emission limits for Diesel Generator # 416 (5.4 MMBtu/hr) are based upon AP-42 data dated 10/96 for diesel engines less than 600 horsepower.
4. Opacity from the Diesel Generators, #416 and CAT 3306 shall not exceed 30% on a six (6) minute block average basis, except for two (2) six (6) minute block averages in a 3-hour period.

C. Stock Piles and Roadways

BPT for all potential sources of fugitive PM emissions, including material stockpiles and unpaved roadways, shall be controlled by wetting with water, with calcium chloride, or other methods as approved by the Bureau of Air Quality to prevent visible emissions in excess of 10% opacity, on a 3 minute block average basis.

D. Facility Emissions and Fuel Use Caps

- 75,000 gallons per year diesel fuel, (0.5% sulfur by weight maximum) in the diesel units

(all based on a 12 month rolling total)

**Total Allowable Annual Emissions for the Facility**  
(used to calculate the annual license fee)

Pollutant	Tons/year
PM	1.6
PM <sub>10</sub>	1.6
SO <sub>2</sub>	2.6
NO <sub>x</sub>	22.7
CO	4.9
VOC	1.8

**III. AMBIENT AIR QUALITY ANALYSIS**

According to the Maine Regulations Chapter 115, the level of air quality analyses required for a renewal source shall be determined on a case-by-case basis. Based on the above total facility emissions, SBC is below the emissions level required for modeling and monitoring.

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**FINDINGS OF FACT AND ORDER**  
**AIR EMISSION LICENSE**

**ORDER**

Based on the above Findings and subject to conditions listed below the Department concludes that the emissions from this source:

will receive Best Practical Treatment,  
will not violate applicable emission standards,  
will not violate applicable ambient air quality standards in  
conjunction with emissions from other sources.

The Department hereby grants Air Emission License A-425-71-F-R, subject to the following conditions:

- (1) Employees and authorized representatives of the Department shall be allowed access to the licensee's premises during business hours, or any time during which any emissions units are in operation, and at such other times as the Department deems necessary for the purpose of performing tests, collecting samples, conducting inspections, or examining and copying records relating to emissions.
- (2) The licensee shall acquire a new or amended air emission license prior to commencing construction of a modification, unless specifically provided for in Chapter 115.
- (3) Approval to construct shall become invalid if the source has not commenced construction within eighteen (18) months after receipt of such approval or if construction is discontinued for a period of eighteen (18) months or more. The Department may extend this time period upon a satisfactory showing that an extension is justified, but may condition such extension upon a review of either the control technology analysis or the ambient air quality standards analysis, or both.
- (4) The licensee shall establish and maintain a continuing program of best management practices for suppression of fugitive particulate matter during any period of construction, reconstruction, or operation which may result in fugitive dust, and shall submit a description of the program to the Department upon request.
- (5) The licensee shall pay the annual air emission license fee to the Department, calculated pursuant to Title 38 M.R.S.A. § 353.
- (6) The license does not convey any property rights of any sort, or any exclusive privilege.

- (7) The licensee shall maintain and operate all emission units and air pollution systems required by the air emission license in a manner consistent with good air pollution control practice for minimizing emissions.
- (8) The licensee shall maintain sufficient records to accurately document compliance with emission standards and license conditions and shall maintain such records for a minimum of six (6) years. The records shall be submitted to the Department upon written request.
- (9) The licensee shall comply with all terms and conditions of the air emission license. The filing of an appeal by the licensee, the notification of planned changes or anticipated noncompliance by the licensee, or the filing of an application by the licensee for a renewal of a license or amendment shall not stay any condition of the license.
- (10) The licensee may not use as a defense in an enforcement action that the disruption, cessation, or reduction of licensed operations would have been necessary in order to maintain compliance with the conditions of the air emission license.
- (11) In accordance with the Department's air emission compliance test protocol and 40 CFR Part 60 or other method approved or required by the Department, the licensee shall:
  - (i) perform stack testing to demonstrate compliance with the applicable emission standards under circumstances representative of the facility's normal process and operating conditions:
    - a. within sixty (60) calendar days of receipt of a notification to test from the Department or EPA, if visible emissions, equipment operating parameters, staff inspection, air monitoring or other cause indicate to the Department that equipment may be operating out of compliance with emission standards or license conditions; or
    - b. pursuant to any other requirement of this license to perform stack testing.
  - (ii) install or make provisions to install test ports that meet the criteria of 40 CFR Part 60, Appendix A, and test platforms, if necessary, and other accommodations necessary to allow emission testing; and
  - (iii) submit a written report to the Department within thirty (30) days from date of test completion.
- (12) If the results of a stack test performed under circumstances representative of the facility's normal process and operating conditions indicate emissions in excess of the applicable standards, then:
  - (i) within thirty (30) days following receipt of such test results, the licensee shall re-test the non-complying emission source under circumstances representative

of the facility's normal process and operating conditions and in accordance with the Department's air emission compliance test protocol and 40 CFR Part 60 or other method approved or required by the Department; and

- (ii) the days of violation shall be presumed to include the date of stack test and each and every day of operation thereafter until compliance is demonstrated under normal and representative process and operating conditions, except to the extent that the facility can prove to the satisfaction of the Department that there were intervening days during which no violation occurred or that the violation was not continuing in nature; and
  - (iii) the licensee may, upon the approval of the Department following the successful demonstration of compliance at alternative load conditions, operate under such alternative load conditions on an interim basis prior to a demonstration of compliance under normal and representative process and operating conditions.
- (13) Notwithstanding any other provisions in the State Implementation Plan approved by the EPA or Section 114(a) of the CAA, any credible evidence may be used for the purpose of establishing whether a person has violated or is in violation of any statute, regulation, or Part 70 license requirement.
- (14) The licensee shall maintain records of malfunctions, failures, downtime, and any other similar change in operation of air pollution control systems or the emissions unit itself that would affect emission and that is not consistent with the terms and conditions of the air emission license. The licensee shall notify the Department within two (2) days or the next state working day, whichever is later, of such occasions where such changes result in an increase of emissions. The licensee shall report all excess emissions in the units of the applicable emission limitation.
- (15) Upon written request from the Department, the licensee shall establish and maintain such records, make such reports, install, use and maintain such monitoring equipment, sample such emissions (in accordance with such methods, at such locations, at such intervals, and in such a manner as the Department shall prescribe), and provide other information as the Department may reasonably require to determine the licensee's compliance status.
- (16) **Rock Crushers**
- a. SBC shall operate and maintain spray nozzles for particulate control on all primary and secondary rock crushers. Visible emissions from the crushers shall be limited to no greater than 10% opacity on a 6 minute block average basis.
  - b. SBC shall maintain a log detailing the maintenance on the water spray nozzles. The maintenance log shall be kept on-site at the rock crushing location.

- c. SBC shall maintain a log detailing and quantifying the hours of operation on a daily basis for all of the primary and secondary rock crushers. The operation log shall be kept on-site at the rock crushing location.

(17) **Diesel Units**

- a. Fuel use records and receipts for the diesel units #416 and CAT 3306 shall be maintained for at least six years and available to the Department upon request.
- b. SBC shall not exceed the total use of 75,000 gal/year of diesel fuel (12 month rolling total), with a sulfur content not to exceed 0.5% by weight. Emissions from Diesel Generator # 416 (5.4 MMBtu/hr) shall be limited to the following:

<u>Pollutant</u>	<u>lb/MMBtu</u>	<u>lb/hr</u>
PM	0.12	0.6
PM <sub>10</sub>	n/a	0.6
SO <sub>2</sub>	n/a	2.8
NO <sub>x</sub>	n/a	17.3
CO	n/a	4.6
VOC	n/a	0.5

- c. Emissions from Diesel Generator CAT 3306 (2.2 MMBtu/hr) shall be limited to the following:

<u>Pollutant</u>	<u>lb/hr</u>
PM	0.7
PM <sub>10</sub>	0.7
SO <sub>2</sub>	1.6
NO <sub>x</sub>	23.8
CO	5.1
VOC	1.9

- d. Visible emissions from the diesel units shall not exceed 30% opacity on a 6 minute block average, except for no more than 2, six minute block averages in a continuous 3 hour period.

(18) **Stockpiles and Roadways**

Potential sources of fugitive PM emissions including material stockpiles and roadways shall be controlled by wetting with water, with calcium chloride, or other methods as approved by the Bureau of Air Quality to prevent visible emissions in excess of 10% opacity, on a 3 minute block average basis.

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**(19) Equipment Relocation**

- a. SBC shall notify the Bureau of Air Quality, by a written notification at least 10 days in advance, prior to relocation of any equipment carried on this license. The notification shall be sent to:

Attn: Relocation Notice  
Maine DEP  
Bureau of Air Quality  
17 State House Station  
Augusta, ME 04333-0017

The notification shall include the address of the equipment's new location and the license number pertaining to the relocated equipment.

- b. Written notification shall also be made to the municipality where the equipment will be relocated, except in the case of an unorganized territory where notification will be made to the respective county commissioners.

- (20) SBC shall keep a copy of this Order on site, and have the operator(s) be familiar with the terms of this Order.

- (21) The term of this order shall be for five (5) years from the signature date below.

DONE AND DATED IN AUGUSTA, MAINE THIS     DAY OF     , 1999.

DEPARTMENT OF ENVIRONMENTAL PROTECTION

BY: \_\_\_\_\_  
MARTHA G. KIRKPATRICK, COMMISSIONER

PLEASE NOTE THE ATTACHED SHEET FOR GUIDANCE ON APPEAL PROCEDURES

Date of initial receipt of application: May 4, 1999

Date of application acceptance: May 25, 1999

Date filed with the Board of Environmental Protection: \_\_\_\_\_

This order prepared by Elisha McVay, Bureau of Air Quality.